CLAIMS:

1. A method of identifying the size of DNA clones or multiple different DNA clones representing multiple transcripts originating from the same gene, comprising:

pooling samples from a plurality of wells of a multi-well plate to form a plurality of pools, said multi-well plate comprising a plurality of individual wells in rows and columns, each well comprising at least one representative of 4,000-12,000 independent DNA clones, and wherein each said sample comprises at least one representative of each of said independent DNA clones,

amplifying DNA clones in each pool by polymerase chain reaction using nucleic acid primers to form amplified DNA product, wherein at least one primer is specific for a gene present in at least one DNA clone,

detecting amplified DNA product from a plurality of said pools, and

identifying the size of a DNA clone in a pool which is representative of said gene, or the presence of multiple different DNA clones in a plurality of pools which are representative of multiple different transcripts originating from said gene.

2. A method of claim 1, wherein said pools are formed by pooling samples from a plurality of wells in a column and/or a row.

3. A method of claim 1, wherein each pool is formed by pooling samples from each well in a column of wells and each well in a row of wells .

4. A method of claim 1, wherein said multi-well plate is a 96-well plate, comprising 8 rows, with 12 wells in each row, and 12 columns, with 8 wells in each column.

5. A method of claim 4, wherein each pool is formed by pooling samples from each well in a column and each well in a row, whereby 20 pools are thus formed.

6. A method of claim 1, wherein said detecting amplified DNA product is performed by gel electrophoresis.

7. A method of claim 2, where said identifying is comparing the sizes of DNA product detected in each pool, and determining pools of wells or columns which contain DNA product having the same size, whereby the presence of same-sized DNA product in a plurality of pools indicates the presence of a DNA clone representing a full-length or a specific transcript of said gene.

8. A method of claim 2, wherein a second primer is a gene specific primer.

9. A method of claim 8, where said identifying is comparing the sizes of DNA product detected in each pool, and determining pools of wells or columns which contain DNA product having the same size, whereby the presence of same-sized DNA product in a plurality of pools indicates the presence of a DNA clone representing a specific transcript of said gene.

10. A method of claim 1, wherein a second primer is a vector-specific primer, and said DNA clones further comprise vector DNA.

11. An array of a cDNA population from a desired mRNA source, comprising:

a multi-well plate containing a plurality of individual wells, each well comprising about 1000-10,000 cDNA clones in aqueous suspension, wherein said cDNA population comprises cDNA of a predetermined size;

at least two wells in said plate comprise a different content of cDNAs; and

said array of said cDNA population in all the wells of said plate is representative of substantially all mRNA of said predetermined size of said source.

12. An array of claim 11, wherein each well in said plate comprises a different content of cDNA.

13. An array of claim 11, wherein said cDNA is inserted into a vector and said cDNA is operably linked to an expression control sequence.

14. An array of claim 11, wherein said vector is a plasmid and said cDNA is operably linked to an expression control sequence.

15. An array of claim 11, wherein each well comprises about 5000 cDNA clones.

16. An array of an aqueous suspension of at least two different cDNA populations in a single multi-well plate, each population obtainable from a different source of mRNA, comprising:

a multi-well plate comprising a plurality of individual wells, wherein a subset of individual wells comprises a cDNA population in an aqueous suspension which is representative of substantially all mRNA of a predetermined size of a desired mRNA source, and the cDNA content of each individual well is different; and

said plate contains at least two different said subsets of individual wells, each subset comprising a different cDNA population and each cDNA population is representative of substantially all mRNA of a predetermined size of a desired and different mRNA source.

17. An array of claim 16, wherein each individual well comprises about 1,000-120,000 cDNAs.

18. An array of claim 16, wherein each individual well comprises about 30,000-100,000 cDNAs.